

A New *Synuchus* (Coleoptera, Carabidae) from
Okinawa-hontô Island, Southwest Japan

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Abstract A new carabid species belonging to the genus *Synuchus* is described from Okinawa-hontô Island, Southwest Japan under the name *Synuchus* (*Synuchus*) *inadai*. Male genitalia of *S. (S.) satoi* MORITA et TOYODA are shown.

Mr. Hanmei HIRASAWA, a friend of ours, entrusted the first author with the study of a small collection consisting of two species of synuchine carabids. In this paper, one of them is described as a new species under the name *S. inadai*, which looks like a very recently described species, *S. ishigakiensis* (MORITA & TOYODA, 2003, p. 75), at first sight. Unfortunately, the other species was not only represented by a female less important taxonomically but also by a specimen in a rather poor condition of preservation.

The abbreviations used herein are as follows: L – body length, measured from apex of clypeus to apices of elytra; HW – greatest width of head; PW – greatest width of pronotum; PL – length of pronotum, measured along the mid-line; PA – width of pronotal apex; PB – width of pronotal base, measured between postangular setae; EL – greatest length of elytra; EW – greatest width of elytra; FL – length of metafemur; ML – length of metatrochanter; TL – length of metatarsus; NSMT – National Science Museum (Nat. Hist.), Tokyo.

We wish to express our deep gratitude to Dr. Shun-Ichi UÉNO for critically reading the manuscript of this paper.

Thanks are also due to Mr. Satoshi INADA for kindly supplying us with important material. Heartly thanks are also due to Mr. Hanmei HIRASAWA for his kindness. Without his help, we could not have undertaken this study.

* Upon getting married, Koji TOYODA was adopted into the family of his wife and his name is now Koji ARAI.

Synuchus (Synuchus) inadai MORITA et K. ARAI, sp. nov.

[Japanese name: Okinawa-tsuyahirata-gomimushi]

(Figs. 1–8)

Diagnosis. Medium-sized; hind wings developed; terminal segment of labial palpus cylindrical (not dilated); pronotal postangular seta present; antennal segment II with a short seta and a minute seta on each side; elytral apices separately rounded; aedeagus bent; viewed laterally, apical half of aedeagus almost straight.

Description. L: 9.7–9.9 mm. Body rather elongate and medium-sized. Colour black; ventral side blackish brown to brown; margins of pronotum dark brown; mouth parts and appendages brown.

Head moderately convex above; PW/HW 1.52, 1.57; frontal furrows almost obsolete; lateral grooves straight, becoming shallower and reaching the post-eye level; eyes large and weakly convex; clypeal suture fine; anterior supraorbital pores situated at the level of apical third of eyes on each side, posterior ones situated at the post-eye level; genae feebly convex, short and about 3/10 as long as eyes on each side; mentum tooth bifid and narrowly rounded at each tip; neck wide; labrum transverse and with straight or very weakly emarginate apical margin; antennae robust; antennal segment II with a short seta and a minute one; relative lengths of antennal segments as follows:— I : II : III : IV : V : VI : XI \cong 1 : 0.55 : 1.08 : 1.13 : 1.18 : 1.15 : 1.22 in 2♂♂; terminal segment of labial palpus cylindrical and widest at about middle (not dilated); terminal segment of maxillary palpus elongate, widest at about middle and narrowly rounded at the tip (not dilated); microsculpture composed of polygonal meshes.

Pronotum of moderate size, and widest at about 3/5 from base; PW/PL 1.21, 1.22; PW/PA 1.52, 1.56; PW/PB 1.29, 1.29; PA/PB 0.83, 0.85; apical margin weakly emarginate and bordered at the sides; sides moderately arcuate throughout; reflexed sides narrow at apical parts, becoming wider posteriad, and merging into basal foveae on each side; base arcuately produced posteriad and bordered at the sides, and almost straight at middle; apical angles weakly produced and rounded at the tips, hind ones widely rounded, and with a seta on each side; anterior marginal setae situated a little before the widest part; basal foveae wide, shallow, and rugose; median line fine and extending a little before the apex and base; microsculpture composed of wide or transverse meshes on the disc, and of strongly impressed isodiametric meshes on the reflexed sides and basal foveae.

Elytra elongate; wings developed; basal borders strongly arcuate and joining scutellar striole on each side; EW/PW 1.41, 1.43; EL/EW 1.59, 1.61; sides weakly arcuate throughout; inner plica indistinct; apices narrowly produced and separately rounded; striae deep and impunctate; intervals moderately convex, and sparsely and microscopically punctate; two dorsal pores very weak and on interval III adjoining stria 2 at basal 3/10–2/5 and 3/5–7/10, respectively; marginal series composed of 16–18 pores; basal pore situated at the proximal part of stria 1 or basal anastomosis of striae 1 and 2; scutellar striole situated on interval I, long, and free at the apical end;

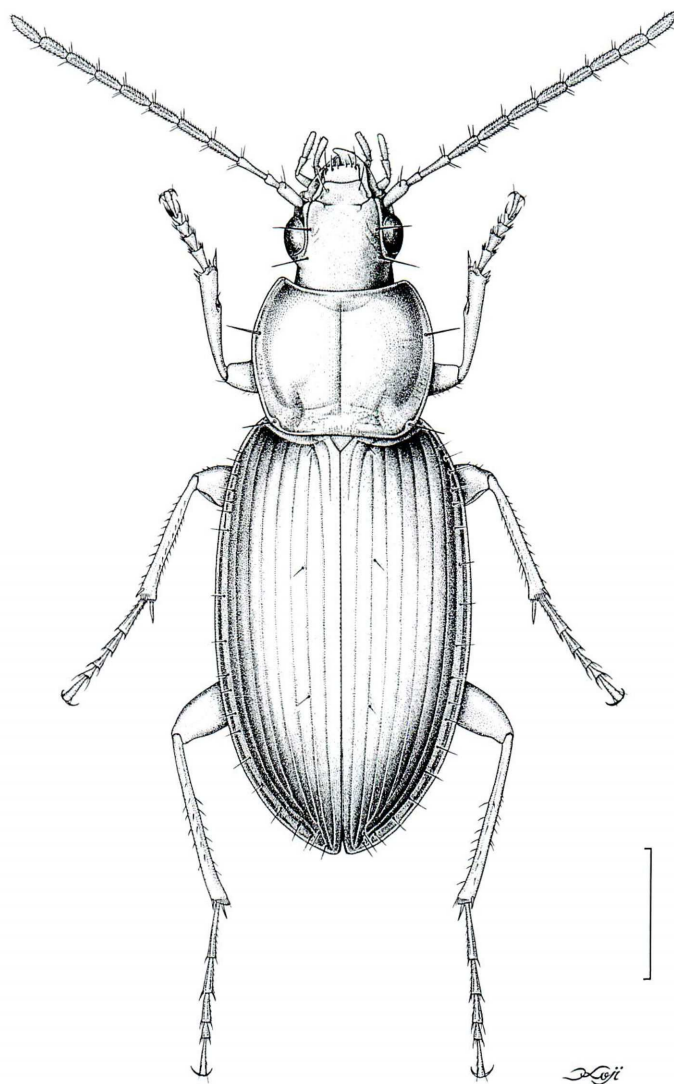
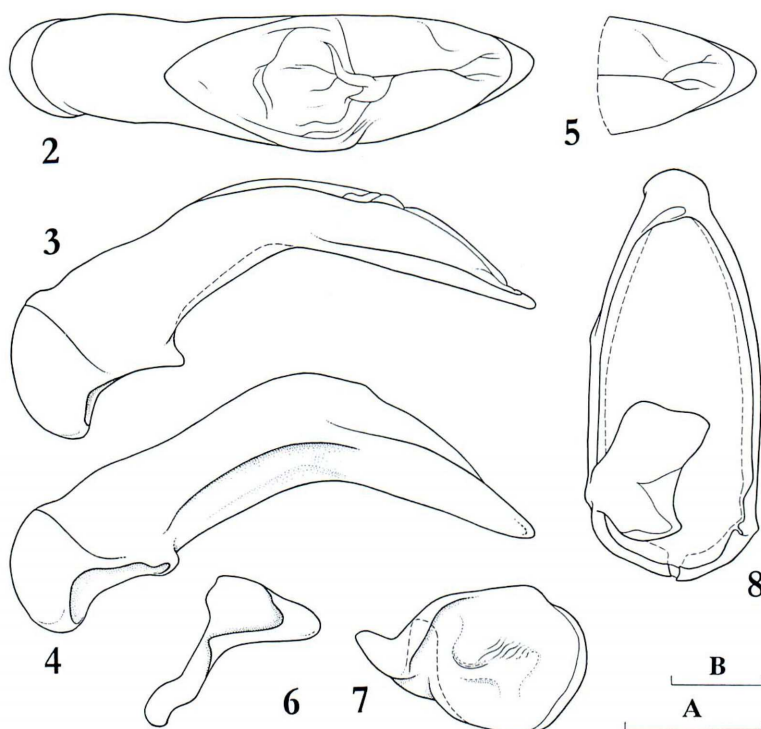


Fig. 1. *Synuchus (Synuchus) inadaï* MORITA et K. ARAI, sp. nov., from Mt. Nishime-dake. Scale: 2 mm.

microsculpture clearly impressed and composed of polygonal or wide meshes.

Ventral side impunctate, but the sternites II and III bear irregular and vague wrinkles; anal sternite (VII) narrowly and strongly produced posteriad. Legs of moderate size; metatrochanter short and with widely rounded apex; ML/FL 0.42, 0.43; segments 1–3 of mesotarsus bisulcate, but the inner sulci are weaker than the outer ones; segments 1–3 of metatarsus bisulcate, but the inner sulci are sometimes rudimentary or disappear; claw segment of metatarsus with a pair of long setae on dorso-lateral sides



Figs. 2–8. *Synuchus (Synuchus) inadai* MORITA et K. ARAI, sp. nov., from Mt. Nishime-dake. — 2, Aedeagus, dorsal view; 3, same, left lateral view; 4, same, oblique left ventro-lateral view; 5, apical part of aedeagus, dorso-apical view; 6, right paramere, left lateral view; 7, left paramere, left lateral view; 8, genital segment, ventral view. Scale: 0.5 mm; A for 2–7; B for 8.

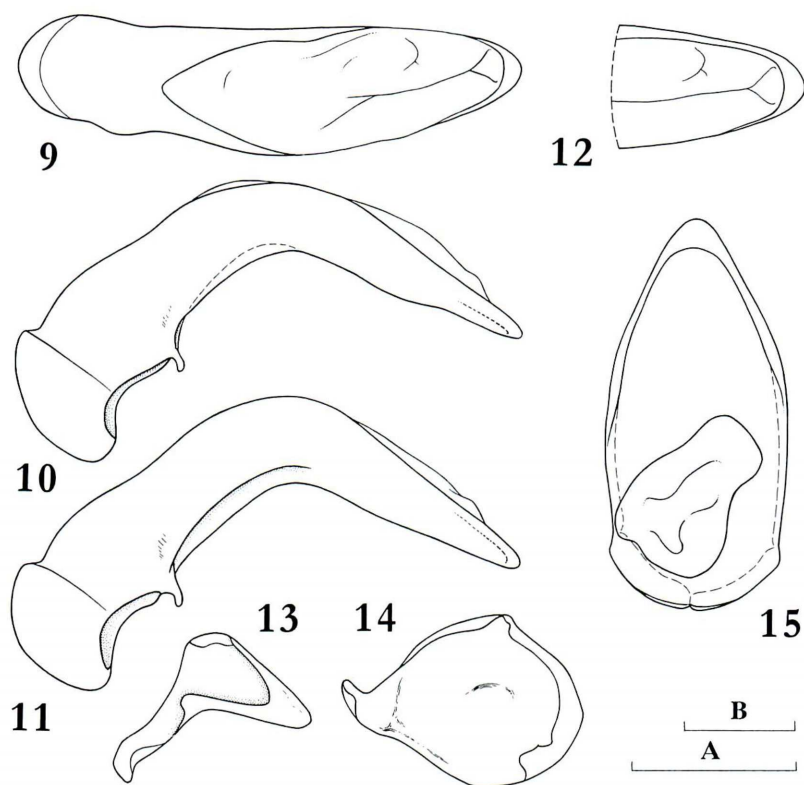
of subapical part, a pair of minute setae on dorso-lateral sides of apical part, and several long setae on ventro-lateral side; claw serrate inside; TL/HW 1.36, 1.37.

Genital segment elongate, narrow at basal part, and with a handle which is short, wide, and bent towards dorsal side. Aedeagus elongate, with short basal lobe, and moderately bent at middle in lateral view; basal half of ventral side deeply concave, and forming ridges at the sides; apical half of ventral side weakly convex; viewed dorsally, apical lobe short and simply rounded at the tip. Right paramere bent, with wide and rounded apical part and elongate basal part; left one broad and with rather large basal part.

Type series. Holotype: ♂ (NSMT), paratype: 1 ♂, 27–I–1998, S. INADA leg.

Type locality. Mt. Nishime-dake, Kunigami-son, Okinawa-hontô Is., Southwest Japan.

Notes. Judging from the shape of the terminal segment of labial palpi, elytral microsculpture, and position of the apical pores and subapical ones of the elytra, this new species belongs to the *dulcigradus* group (HABU, 1978, p. 344). However, this new



Figs. 9–15. *Synuchus (Synuchus) satoi* MORITA et TOYODA, from Mt. Omoto-dake. — 9, Aedeagus, dorsal view; 10, same, left lateral view; 11, same, oblique left ventro-lateral view; 12, apical part of aedeagus, dorso-apical view; 13, right paramere, left lateral view; 14, left paramere, left lateral view; 15, genital segment, ventral view. Scale: 0.5 mm; A for 9–14; B for 15.

species can be easily distinguished from *S. (S.) dulcigradus* (BATES) (1873, p. 273) by the shape of elytral apices and the bent aedeagus [in *S. (S.) dulcigradus*, apices of elytra obliquely truncated on each side; aedeagus very weakly arcuate in lateral view (cf. HABU, 1978, pp. 339, 345, figs. 695, 708.)].

On the other hand, this new species looks like a very recently described species, *S. (S.) ishigakiensis*, at first sight. It is, however, distinguished from it by the following points: body larger; basal foveae of pronotum deeper; apex of elytron more rounded; hind wings developed; apical part of aedeagus differently shaped in lateral view.

This year, we described *Synuchus satoi* (MORITA & TOYODA, 2003, p. 72) from Southwest Japan. In the original description, we incorrectly gave an illustration of the male genital organ; we therefore take this opportunity to provide the correct one.

要 約

森田誠司・新井浩二：沖縄本島から発見されたツヤヒラタゴミムシの1新種。—— 沖縄本島から発見されたツヤヒラタゴミムシの1新種 *Synuchus (Synuchus) inadai* MORITA et K. ARAI を記載した。この種は、ヒメツヤヒラタゴミムシ *S. (S.) dulcigradus* (BATES) 種群に属するが、陰茎の形態などで明瞭に異なる。

なお本年、石垣島から筆者らが記載した *S. (S.) satoi* MORITA et TOYODA の陰茎が、誤って図示されたため訂正をおこなった。

References

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Additional Records of *Micropeplus sharpi* (Staphylinidae, Micropeplinae)

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A micropepline staphylinid species, *Micropeplus sharpi* SAWADA, 1964 (Ent. Rev. Japan, **16**: 35, pl. 6, fig. 1), was described on the specimens collected from Kasuga-yama, Nara Prefecture of Kinki District in Central Japan. This species is rather rare since no other specimen than the holotype and allotype of the type series has so far been known. The second author obtained this micropeplid from small secondary broadleaved forests in Mie Prefecture. Its collecting data are as follows:

Specimens examined. 1♂, Toyama, Uéno-shi, Mie Pref., 19–X–1996, H. YOKOZEKI leg.; 1♂, Sumiyoshi-Jinja, Inagu, Uéno-shi, Mie Pref., 21–IX–1998, H. YOKOZEKI leg.